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MEMORANDUM FOR: George Allen
Director, Imagery Analysis Service

SUBJECT: PHOTINT

1. Some months have passed since we last met on this draft of PHOTINT production during an international crisis. As the D/DCI/IC intends to forward this to the USIB in the near future, we are providing you our final draft for your informal comment.

2. We would appreciate it if we could receive your comments not later than 15 September. Please address your responses to [redacted] Deputy Chief of the Product Review Division, Intelligence Community Staff, Room 6E08, CIA Headquarters ([redacted]).

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Colonel, USMC

Attachment:

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PHOTOGRAPHIC INTELLIGENCE PRODUCTION
DURING AN INTERNATIONAL CRISIS

NOTE

This study is one of a series being produced by the IC Staff on problems related to the production of intelligence during the Arab-Israeli War of October 1973. The other forthcoming studies are concerned with SIGINT, HUMINT, and Intelligence Production generally.

TOP SECRET

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SUMMARY CONCLUSIONS AND RECOMMENDATIONS

1. Because of limitations in collection systems, photographic intelligence (PHOTINT) has generally produced little information of immediate value during international crises. Only occasionally has it made important contributions. It is likely to become a much more valuable collection resource for crisis coverage with the advent of the

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2. Effective employment of PHOTINT during a crisis has been complicated by the number and variety of requirements suddenly levied on the PHOTINT managers with little concern for relative priorities.

3. We recommend that the NIO structure play a more direct role in the identification and prioritization of crisis-related PHOTINT requirements and that an NPIC liaison officer be assigned to support the responsible NIO during crises for this purpose.

4. During an international crisis the photographic processing activities of NPIC, CIA's Imagery Analysis Service (IAS), and DIA's DI-8 are conducted with some informal coordination but more or less independently. This results in some redundancy of effort and inefficient use of resources.

5. We recommend that during a crisis the Director of NPIC be given the responsibility to integrate and coordinate the crisis-related activities of NPIC, IAS, and DI-8.

TOP SECRET

TOP SECRET

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY CONCLUSIONS AND RECOMMENDATIONS	i
I. INTRODUCTION	1
II. THE PROBLEM OF REQUIREMENTS AND PRIORITIES	1
III. A PROPOSED SOLUTION	3
IV. PROBLEMS IN EXPLOITATION	5
V. PROPOSED INTEGRATION OF PHOTINT EXPLOITATION	7

TOP SECRET

TOP SECRET

PHOTOGRAPHIC INTELLIGENCE PRODUCTION
DURING AN INTERNATIONAL CRISIS

I. INTRODUCTION

1. Overhead photography has generally produced little intelligence of immediate value during international crises like the Arab-Israeli War of October 1973. The satellite systems, which are designed and programmed to cover strategic targets over the Sino-Soviet land mass, cannot be easily or quickly diverted to other parts of the world. Even if they are diverted, the delay in recovering and processing the film (rarely less than a week under optimum circumstances) renders it of little use to the decision-makers.

2. Photographic reconnaissance aircraft, such as the SR-71 or the U-2, are potentially more flexible and thus more useful systems than the satellite vehicles for coverage of crisis situations. Their deployment, however, is often seriously inhibited by political considerations. In addition to the problem of negotiating staging and overflight rights for such missions, the decision-maker must weigh the risks of adverse reactions to the use of (and even hostile action against) such aircraft in the crisis area.

3. There have been occasions, however, when overhead photography has produced valuable intelligence on crisis situations, and the opportunity for such coverage will undoubtedly recur in the future. Moreover, the advent of the [] system is likely to make photography a much more significant technique for tracking military developments in future crises. It is appropriate, therefore, to examine the way in which the intelligence community manages its photographic reconnaissance resources.

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4. Our review of the performance of the PHOTINT community during the October War suggests two areas of weakness. One was in [] the establishment and prioritization of requirements; the other was in a certain lack of coordination among the three photographic processing elements of the community (NPIC, IAS, and DI-8). This paper addresses these problems and suggests remedies.

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II. THE PROBLEM OF REQUIREMENTS AND PRIORITIES

For NPIC

5. During non-crisis periods, PHOTINT requirements are identified as specific targets through the COMIREX mechanism. There are, for example, approximately [] targets identified for

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each satellite mission. These include a large number of SAM sites, airfields, etc., and the ~~PHOTINT~~ community provides specific readouts for each of these [] targets. This system is a logical and orderly means of meeting expressed needs when time is available, i.e., during non-crisis periods.

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6. During crises, the system of defining requirements is adjusted. During the October War, for example, the Chairman of the Imagery Exploitation Subcommittee (EXSUBCOM) of COMIREX issued instructions setting forth the special requirements of the crisis and informing the ~~PHOTINT~~ exploitation community that these new targets would take precedence over [] existing targets. The Chairman of COMIREX maintained continuous contact with NPIC, and to a lesser degree with IAS and DI-8 as well, concerning these special requirements.

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7. But there were difficulties. Interviews with exploitation managers and photo interpreters indicate that these special requirements were seldom posed to the working level in a manner which defined needs with precision. And it was understood by most workers in the exploitation element of the ~~PHOTINT~~ community concerned with the Middle East that they were expected both to answer the new requirements and to continue to respond to the existing [] targets as well.

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8. In addition to the requirements expressed through the COMIREX mechanism, others received directly from various sources by the Director of NPIC, and still others by the ~~Chiefs~~ of IAS and DI-8 from their parent organizations, requirements also entered the system during the October War at the branch, division, and group levels of the exploitation organizations. These requirements constituted, in the main, direct requests by individual production analysts and were not filtered through NPIC, DI-8, and IAS managers. But these managers had decided to accept such informal requests for information and production because they wished to be as responsive as possible to the needs of intelligence producers.

Not

9. Though it is unarguable that give and take between production analysts and the working level of the ~~PHOTINT~~ community is desirable, this more or less uncritical acceptance of individual requirements may actually have diminished the responsiveness of PHOTINT. It was not uncommon during the October War, for example, for the exploitation

TOP SECRET

TOP SECRET

elements to receive requirements from two or more consumers, who in effect requested the same PHOTINT support, but who worded their requests differently. This often forced the exploitation elements to treat the requests as time-consuming separate projects.

10. But the principal problem arising from direct contacts between analysts and PHOTINT workers lay in its effect on priorities. In brief, elements of the PHOTINT community could not always judge whether the requirement they were working on was something in a nice-to-know category or an item of critical interest.

for whom? 11. In general, then, too many people were involved in identifying PHOTINT exploitation requirements. Requirements were too often murky, and there was a tendency on the part of the PHOTINT community to accept requirements regardless of source or priority. *WPC?* *UIC* *SA*

III. A PROPOSED SOLUTION

12. How best to provide guidance concerning the precise needs and priorities of the producers (and, through them, the needs and priorities of the national consumers as well) is, of course, the principal question. As we noted in the preceding SIGINT paper, we do not believe that new USIB subcommittees, new requirements staffs, or more rigid chains of command are the answer to this kind of a problem. New control measures are more likely to impede than to speed up the transmission of crisis-related requirements and the production of intelligence by the photo interpreters. Ideally, the number of filters between the national decision-makers and the producers and the collectors should be kept to an absolute minimum.

13. The NIO structure is, of course, the institution which is designed to play a key role in the formulation of critical requirements and priorities during crises. The NIOs act as the connecting link between national policy-makers and the producers of intelligence and between those producers and other elements of the community. They are in a unique position to define the needs of policymakers and to determine which producers and collectors can best respond.

14. During the 1973 Arab-Israeli crisis, the NIOs influenced the formulation of requirements and priorities, but in an informal, ad hoc manner. We are persuaded that the operations of the PHOTINT community

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during a crisis could be focused more effectively if the NIO's role in identifying and prioritizing requirements were strengthened and if procedures for channeling NIO guidance to the PHOTINT community were established in advance. *why?*

15. We propose that the NIO-PHOTINT community relationship proceed along the following lines:

a. During a crisis, the NIOs, as direct representatives of the DCI, would on a continuing basis advise the collectors concerning the priorities and principal requirements of the policymakers and the major producers of intelligence. (More often than not, no doubt, the collectors would have anticipated the nature of such guidance.) The NIOs would also ensure that the collectors are told what kinds of information are not needed by users and consumers. And the NIOs would propose or approve whatever temporary diversions of the collector's national effort seemed necessary to accommodate new priorities imposed by the crisis.*

Why not the established EXSUBCOM mechanism...

b. The NIOs would be free to advise the collectors in any manner--formal, informal, written, or oral--they deem appropriate and effective and their advice would be conveyed through any officer or office designated by the Director of NPIC.** Ordinarily, though not always, the NIOs would be concerned with questions of broad range and substantial import.

c. Regular, detailed exchanges of and requests for information would continue to be passed by production analysts directly or through existing channels to the collectors. But it would be reasonable to expect some diminution in volume as a consequence of the NIO's activities, and the collectors would not in any case be asked or expected to reorder priorities on the basis of such individual requests.

* Such proposals need not affect tactical priorities established by DOD.

** The relationship of the NPIC, IAS, and DI-8 in the imagery exploitation equation during a crisis is addressed in detail later in this paper.

TOP SECRET

TOP SECRET

d. The NIOs would monitor requests from agencies which wished to task collectors directly during a crisis, and the latter would be asked to coordinate any significant adjustments in the collection effort with the NIOs. Unresolved issues (and there should be few if any of these) could be raised by the NIO with the DCI who, when necessary, could poll or convene the USIB specifically for this purpose.

No!

EXSUBCOM.

e. As indicated in b., above, NPIC would designate a senior point of contact for the NIOs.

f. NPIC would also name a liaison officer to serve TDY with whatever de facto crisis task force were established under the DCI's auspices. This officer (who need not possess substantive credentials, but who should be generally knowledgeable, in this instance, about the PHOTINT effort) would, in addition to his duties with the task force, assist the NIO in his dealings with NPIC, particularly in monitoring NPIC's collection effort. Administrative support of the liaison officer could be provided by AO/DCI (rather than the NIO office, which lacks the necessary apparatus to do so).

what effort?

IV. PROBLEMS IN EXPLOITATION

NPIC gets?

Against
Pulse?

16. In addition to improving the means of identifying and controlling requirements, the intelligence community should consider ways to improve the exploitation of imagery during crises. At present, the capability to collect photography outstrips the community's ability to process and exploit the film. Thus, the determination of what is to be exploited, and how, is a central problem and becomes a crucial one during periods of crisis.

17. The present system of imagery exploitation during a crisis functions in the following manner:

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a. When satellite and SR-71 photography is received, NPIC conducts the immediate photo readout and reporting of what it perceives to be high priority, time-sensitive information. It then carries out an expeditious and detailed search of all the photography plus routine reporting on lower priority targets and areas.

TOP SECRET

TOP SECRET

b. DIA's DI-8 and CIA's IAS may assist in NPIC's immediate exploitation effort, but the decision to do so rests with the parent agencies.

c. DI-8 and IAS take the lead in conducting more detailed analysis of the imagery and, to the extent possible, in using multi-mission materials to conduct in-depth analysis.

18. From the point of view of national intelligence, this system of exploitation functions at less than optimum levels. Central to the problem is the fact that, as established, IAS and DI-8 must respond to the needs of their parent agencies as their first priority. In our view, the demands of crises argue for increased integration of the PHOTINT effort in all stages of photo readout, interpretation, and analysis. There was some joint immediate exploitation during the October War, but the degree of participation by DIA and CIA was uneven and voluntary. Under present arrangements, then, there is no machinery and there are no procedures which automatically ensure joint effort.

To
achieve
what
purpose?

19. Without joint exploitation, there is likely to be a fair amount of redundant effort. During the October War, for example, a national consumer asked for the number of tanks deployed by the belligerents on the two major battlefronts. This rather major PHOTINT requirement was handled separately by DI-8 and IAS; both elements reviewed the same photography and for the most part counted the same tanks. There were, however, some differences in totals as a result of differences concerning the areas within which tanks were to be counted and concerning the identification of various vehicles which could be interpreted as tanks or as other kinds of armored vehicles. Substantial time was consumed in resolving these differences, although the net difference in the individual counts was not significant. ?

20. A principal argument against the joint utilization of PHOTINT personnel in a crisis has been that by pooling resources the community loses the ability to provide critical analysis of its own product, i.e., differing analysis by DI-8 and IAS helps ultimately to improve the overall quality and usability of PHOTINT. This may well be true. But redundancy is a luxury, especially in an era of diminishing personnel resources and increasing photographic collection.

Not in crisis!

TOP SECRET

TOP SECRET

V. PROPOSED COORDINATION OF PHOTINT EXPLOITATION

21. It is proposed, therefore, that the division of labor among NPIC, IAS, and DI-8 during a crisis be more effectively coordinated to eliminate redundancy of effort and ensure the most efficient use of their respective resources. It is suggested that the most effective way of achieving such coordination would be to assign to the Director of NPIC primary responsibility for directing the effort. The requirements system would also benefit if a single effort under a single manager were responding to NIO guidance.

22. This proposal does not envisage the total integration of NPIC, IAS, and DI-8 operations. There are specific national and departmental responsibilities which these PHOTINT elements must serve, e.g., DIA's responsibilities to support the Department of Defense. We suggest only that special tasks may require special arrangements--in this instance, a PHOTINT community crisis task force which would be directed by one responsible officer, rather than as it now stands, three.

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TOP SECRET

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